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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

POLLACK, MELVIN H

ART UNIT

PAPER NUMBER

2142

5

DATE MAILED: 01/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/451,802

Applicant(s)

SUNDAR, MURALI

Examiner

Melvin H Pollack

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *see attached office action*.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.
2. Examiner's original rejection of claim 1 was 103(a) unpatentable over Johnson in view of Richardson (paragraphs 9 and 10 of the last office action). However, examiner failed to cite Richardson in the header declaring why claim 1 was unpatentable (paragraph 8). Because of said error, the office requires an automatic non-final response. Examiner apologizes to the applicant for any and all inconveniences caused by this error.
3. Applicant argues that Johnson does not teach "specifying a preferred state." Examiner maintains his original rejection. Examiner also points to other items that implicitly teach this limitation (col. 1, lines 6-10, lines 40-55, and col. 1, line 65 – col. 2, line 10). Without a specified preferred state, all of these tasks would be impossible and/or worthless.
4. Examiner and Applicant agree that Johnson does not expressly disclose the autonomous travel of a mobile software agent between selected network computers. Applicant charges that Richardson does not expressly disclose this aspect, either. Examiner admits that Richardson fails to disclose travel between selected computers.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2142

6. Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 7-8 recites the limitation "mobile monitoring agent" in claim 1. There is insufficient antecedent basis for this limitation in the claim. Examiner interprets this to be the mobile software agent. If so, then the examiner suggests either changing the terminology or in adding a claim that says "wherein the mobile software agent is a mobile monitoring agent."

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Adams.

10. For claim 1, a method (see abstract) of managing the state of networked computers (col. 1, lines 9-11), comprising:

- a. Specifying a preferred state (col. 9, lines 46-50);
- b. Defining selected networked computers to be maintained in the preferred state (col. 5, lines 3-15);
- c. Monitoring the selected networked computers for deviation from the preferred state (col. 2, lines 30-40); and
- d. Bringing the selected networked computers that deviate from the preferred state to the preferred state (col. 3, line 65 – col. 4, line 7) via a mobile software agent (col. 1,

Art Unit: 2142

lines 49-51) that travels autonomously between the selected networked computers (col. 4, lines 16-32).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 3-8, 10-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh (6,233,601) and Meandzija (6,404,743).

13. Walsh teaches (see abstract) a mobile software agent (Fig. 3) that travels autonomously (Fig. 5) between the selected networked computers (Fig. 6).

14. Walsh does not expressly disclose a purpose for this type of mobile agent. Instead, the purpose is left open for a wide variety of applications, and the particular use remains generic (Fig. 2, and col. 3, lines 31-36). Meandzija teaches a method (see abstract) of managing the state of networked computers (col. 1, lines 20-21), comprising:

- a. Specifying a preferred state (col. 4, lines 50-65);
- b. Defining selected networked computers to be maintained in the preferred state (Fig. 4, #410, 415, 420);
- c. Monitoring the selected networked computers for deviation from the preferred state (col. 4, lines 55-65); and
- d. Bringing the selected networked computers that deviate from the preferred state to the preferred state (col. 2, lines 5-15).

Art Unit: 2142

15. At the time the invention was made, one of ordinary skill in the art would have found that a purpose for Walsh agents would be to perform network management methods such as those disclosed in Meandzija and a host of other monitoring agent methods.

16. For claims 3-6, Walsh teaches that the mobile software agent uses a list of selected networked computers (Fig. 6, #28) that comprises a network space that the agent travels throughout (Fig. 6).

17. As for claim 7, Meandzija teaches that the software agent does the monitoring (col. 7, lines 30-37). At the time the invention was made, one of ordinary skill in the art would have combined the inventions for the reasons above.

18. Claim 8 is drawn to limitations already defined in claim 1.

19. For claim 10, Walsh teaches that the mobile agent travels by transferring itself from one computer to the next, and erasing itself from the present computer after it has successfully transferred itself (col. 4, lines 47-57).

20. For claims 11-15, Walsh teaches that the agent can decide to travel to computers not originally on the itinerary, and maintains a trip report that is sent to the host both periodically and upon return (col. 2, lines 47 – 58). Walsh also teaches that the selected network computers have a mobile software agent host program thereon to facilitate mobile software agent travel and execution (Fig. 5, 7).

21. Claim 16 is a machine-readable medium with instructions stored thereon, the instructions operable when executed to implement the method drawn in claim 1. Claims 17-19 are similar, but do not have all the limitations. The prior art teaches that a software implementation is functionally equivalent to the underlying method. Official notice is taken regarding the fact that

Art Unit: 2142

program instructions are stored on a medium and operable when executed. If claim 1 is rejected, then claims 16-19 are also rejected for the reasons above.

22. Claim 20 is drawn to a computerized network computer management system comprising a hardware implementation of the method drawn in claim 1. The prior art teaches that a hardware implementation is functionally equivalent to a software implementation. Therefore, if claim 1 is rejected, then claim 20 is also rejected for the reasons above.

23. Claim 21 is drawn to a method with many of the same limitations as claim 1. If claim 1 is rejected, then claim 21 is also rejected for the reasons above.

24. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh and Meandzija as applied to claims 1, 3-8, 10-21 above, and further in view of Wookey (6,085,244).

25. Wookey teaches many of the same limitations as Meandzija (abstract, Fig. 1-4, col. 10, lines 20-25). Wookey also teaches defining a preferred software configuration (Fig. 17, #1709) and steps to bring the software into a preferred state (Fig. 17, #1711).

26. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh and Meandzija as applied to claims 1, 3-8, 10-21 above, and further in view of Johnson et al (5,987,135).

27. Johnson teaches many of the limitations in claim 1, as shown above. As for claim 9, Johnson teaches that the mobile software agent that brings the selected networked computers that deviate from the preferred state to the preferred state also performs the monitoring the selected networked computers for deviation from the preferred state by first monitoring each selected

Art Unit: 2142

networked computer it travels to for deviation from the preferred state and subsequently bringing the computer to the preferred state if it deviates from the preferred state (It is shown above that an agent can have a monitor capability and another agent can have a correction capability. But the above says that an agent can “perform any or all of the following functions” in col. 5, line 1. That is, the same agent can perform both monitor and correction functions.).

28. Meandzija does not expressly disclose the mechanisms for repairing deviations from the preferred state. At the time the invention was made, one of ordinary skill in the art would have used the teachings of Johnson to improve the functionality of Meandzija.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

30. The following teaches background art on autonomous mobile agents: Davies et al. (6,230,210), Shigemori et al. (6,473,761), Mima et al. (6,065,040), and the articles from Abeck et al., Kim et al., Sadok et al., Vogler et al., Liotta et al., and Lignau et al.

31. The following teaches various embodiments of using mobile agents to monitor networked computers: Chen et al. (6,021,437), Hemphill et al. (6,490, 617), Jawahar et al. (6,256,620), Kita et al. (6,430,611), Luzzi et al. (6,321,263), Meandzija (6,160,005).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H Pollack whose telephone number is (703) 305-4641. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark R Powell can be reached on (703) 305 - 9703. The fax phone numbers for the

Art Unit: 2142

organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

MHP

January 23, 2003

A handwritten signature in black ink, appearing to read 'R. Harrell', with a long horizontal flourish extending to the right.

**ROBERT B. HARRELL
PRIMARY EXAMINER**